

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for communication of data, ~~implemented in a receiver between a transmitter and a receiver over one or more communication channels, the data being provided in a frame, the method comprising the steps of:~~

~~at the transmitter:~~

~~—— (a) dividing the frame into segments according to an optimum segment size;~~

~~—— (b) combining multiple segments into a segment block;~~

~~—— (c) applying a forward error correction encoding process to the segment block to produce a forward error correction block;~~

~~—— (d) sending the forward error correction block over a communication channel;~~

~~at the receiver:~~

~~receiving a forward error correction coded block;~~

~~receiving a forward error correction code rate;~~

~~receiving a symbol modulation rate;~~

~~(e) applying a forward error correction decoding process on the received forward error correction block to produce a received decoded block based on the forward error correction code rate and the symbol modulation rate;~~

~~(f) dividing the received decoded block into segments;~~

- (g) determining if ~~any~~ a segment was received in with an error;
- (h) correcting the segment received with an error ~~according to the~~ using forward error correction ~~encoding, if possible~~; and
- (i) requesting retransmission ~~only~~ of the segment received in with an error only when the segment received with an error is not correctable and unable to be corrected.

2. (Currently Amended) The A method of as in claim 1, additionally further comprising the step of, at the transmitter:

- (i) inserting receiving a checksum in[[to]] the segments to enable identification of ~~erroneously received~~ segments received with an error at the receiver.

3. (Currently Amended) The A method of as in claim 1, wherein step (b) additionally comprises further comprising the step of, at the transmitter:

- (j) receiving inserting a position number in[[to]] the segments [[to]] identifying a position of the segment within the frame.

4. (Currently Amended) The A method of as in claim 1, further comprising:

~~wherein step (d) additionally comprises sending~~ receiving the forward error correction block ~~over~~ using multiple distinct communication channels.

5. (Currently Amended) The A method of as in claim 1, additionally further comprising the steps of, at the receiver:

(k) determining ~~the a~~ number of segments received at the receiver in with an error; and

(l) determining [[the]] a optimum segment size for ~~the a~~ communication channel based upon the determined number of segments received in with an error ~~which were attempted to be communicated over that channel.~~

6. (Currently Amended) The A method of as in claim 5, wherein steps (k) and (l) additionally further comprising: ~~comprise~~

determining an error rate in each channel and a an optimum number of segments for each channel ~~individually.~~

7. (Currently Amended) The A method of as in claim 5, wherein step (k) determines further comprising: ~~determining~~

the a number of segments received in with an error at the receiver by counting ~~the a~~ number of selective reject orders made to the transmitter.

8. (Currently Amended) The A method of as in claim [[1]] 5, wherein step (k) determines further comprising: ~~determining~~

a an optimum number of frames according to a ratio of a the number of segments received in with an error to a number of segments received correctly.

9. (Currently Amended) The A method of as in claim [[1]] 5, wherein step (k) additionally comprises further comprising: the step of ~~determining~~

determining ~~an adjusted a~~ number of data bytes in a frame, X, from the formula:

$$X = -H + \sqrt{(X_{\text{current}} + H_{\text{current}}) * H / R}$$
$$X = -H + \sqrt{(X_{\text{current}} + H_{\text{current}}) * \frac{H}{R}}$$

where X_{current} is the present number of data bytes in a the frame, H_{current} is the present frame overhead in bytes, H is the new overhead for the frame in bytes, and R is a ratio of segments received in with an error to segments received correctly.

10. (Currently Amended) A method for providing wireless communication of digital signals, ~~the digital signals being communicated between a plurality of wireless subscriber units and a base station, the digital signals being communicated using at least one radio frequency channel via Code Division Multiple Access (CDMA) modulated radio signals, the digital signals also having a given nominal data rate,~~ the method comprising the steps of:

providing (a) ~~making available~~ a plurality of sub-channels within each CDMA radio a channel, wherein a data rate of each sub-channel is less than the nominal data rate of the digital signals;

(b) ~~establishing a network layer session with multiple subscriber units between terminal equipment connected to the subscriber unit through the base station to other terminal equipment connected to the base station; and~~

(c) ~~during the network layer session,~~ allocating available sub-channels on an as-needed basis, with whereby the number of provided sub-channels allocated thereby changing changes during the duration of the network layer a given session;

(d) ~~dividing a network layer frame into segments according to optimum segment sizes;~~

(e) ~~combining multiple segments into a segment block;~~

~~(f) applying a forward error correction encoding process to the segment block to produce a forward error correction block; and~~

~~(g) at a receiver, decoding the forward error correction block and divides dividing it back into segments; and~~

~~(h) requesting receiving a request for retransmission only when a subscriber unit determines that a forward error correction block is not correctable, of a segment received in error.~~

11. (Currently Amended) The A method of as in claim 10, additionally further comprising the step of:

~~(i) determining a an optimum segment size for the sub-channels based upon a predetermined number of segments received in with an error which were attempted to be communicated over the sub-channels.~~

12. (Currently Amended) The A method of as in claim 10, wherein step (i) additionally further comprising: comprises

dynamically adjusting the frame size of a channel to control optimize the an effective throughput of the overall system based upon the ratio of actual raw data transferred to the a total number of bits actually used to carry information, including frame overhead and retransmissions.

13. (New) A method, implemented in a transmitter, for communication of data, the method comprising:

dividing a data frame into segments according to a segment size;

determining a forward error correction coding rate based on a channel condition;

combining multiple segments into a segment block, wherein the segment block size is determined by the forward error correction coding rate;

applying a forward error correction encoding process to the segment block to produce a forward error correction block; and

transmitting the forward error correction block.

14. (New) The method of claim 13, further comprising:
inserting a checksum into the segments to enable identification of erroneously received segment.

15. (New) The method of claim 13, further comprising:
inserting a position number into the segments to identify a position of the segment within the frame.

16. (New) The method of claim 13, further comprising:
sending the forward error correction block over multiple distinct communication channels.

17. (New) A local service provider unit for communication of data in a wireless communication system, the local service provider unit comprising:
a receiver configured to receive data and determine a channel condition;
a processor configured to divide a data frame into segments according to a segment size, to determine a forward error correction coding rate based on the channel condition, and to combine multiple segments into a segment block, wherein the segment block size is determined by the forward error correction coding rate;

an encoder configured to forward error correction encode to the segment block to produce a forward error correction block; and
a transmitter configured to transmit the forward error correction block.

18. (New) The local service provider unit of claim 17, wherein the processor is further configured to insert a checksum into the segments to enable identification of a segment transmitted with an error.

19. (New) The local service provider unit of claim 17, wherein the processor is further configured to insert a position number into the segments to identify a position of the segment within the frame.

20. (New) The local service provider unit of claim 17, wherein the transmitter is further configured to send the forward error correction block over multiple distinct communication channels.

21. (New) A remote subscriber unit for communication of data, the remote subscriber unit comprising:

a receiver configured to receive a forward error correction (FEC) block, FEC code rate and a symbol modulation rate;

an encoder configured to forward error correction decode the FEC block to produce a received block based on the FEC code rate and the symbol modulation rate;

a processor configured to divide the received block into segments, to determine if any segment was received with an error, and to correct the error using forward error correction; and

a transmitter configured to request retransmission only if the segment received with an error is not correctable.

22. (New) The remote subscriber unit of claim 21, wherein the receiver is further configured to receive a checksum in the segments to enable identification of erroneously received segments.

23. (New) The remote subscriber unit of claim 21, wherein the receiver is further configured to receive a position number in the segments identifying a position of the segment within the frame.

24. (New) The remote subscriber unit of claim 21, wherein the receiver is further configured to receive the forward error correction block over multiple distinct communication channels.

25. (New) The remote subscriber unit of claim 21, wherein the processor is further configured to determine the number of segments received at the receiver with an error, to determine the optimum segment size for the communication channel based upon the determined number of segments received with an error.